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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/048,076	06/02/2002	Peter Mathewson	FNL6318P0020US	6387
24628	7590	10/05/2004	EXAMINER	
WELSH & KATZ, LTD 120 S RIVERSIDE PLAZA 22ND FLOOR CHICAGO, IL 60606			TUREMAN, JARED	
			ART UNIT	PAPER NUMBER
			2876	

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/048,076	MATTHEWSON, PETER	
	Examiner	Art Unit	
	Jared J. Fureman	2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on _____.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-23 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
 5) Claim(s) ____ is/are allowed.
 6) Claim(s) ____ is/are rejected.
 7) Claim(s) 1-23 is/are objected to.
 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 23 January 2002 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 012302.

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

Receipt is acknowledged of the preliminary amendment, filed on 1/23/2002, and the declaration, filed on 6/2/2002, which have been entered in the file. Claims 1-23 are pending.

Specification

1. The disclosure is objected to because of the following informalities: The specification does not contain headings. Headings, such as "BACKGROUND OF THE INVENTION", "BRIEF SUMMARY OF THE INVENTION", "BRIEF DESCRIPTION OF THE DRAWINGS", and "DETAILED DESCRIPTION OF THE INVENTION", should be added to the specification.

Appropriate correction is required.

Claim Objections

2. Claims 1, 2, 11-14, and 17-20 are objected to because of the following informalities:

Claim 1:

Line 5, "(which may be zero)" should be deleted, since the ordinary dictionary definition of an integer includes zero, it is already understood that the integer m may be zero.

Line 6, "the" (first occurrence) should be deleted, in order to avoid a lack of proper antecedent basis for "the integers of a predetermined mathematical sequence".

Claim 2, line 5: "(which may be zero)" should be deleted, since the ordinary dictionary definition of an integer includes zero, it is already understood that the integer m may be zero.

Claim 11, line 1: "said the" should be deleted, in order to avoid a lack of proper antecedent basis for "magnetic properties".

Claim 12, line 2: "the" (first occurrence) should be deleted, in order to avoid a lack of proper antecedent basis for "geometric properties".

Claim 13, line 3: --of-- should be inserted after "5".

Claim 14:

Line 1, claim 14 depends from claim 11 or 12, however, claim 12 does not provide any antecedent basis for "the magnetic elements" as recited in line 2 of claim 14.

Line 2, "the" (first occurrence) should be replaced with --a--, in order to avoid a lack of proper antecedent basis for "the length".

Claim 17, line 3: "the" (first occurrence) should be replaced with --a--, in order to avoid a lack of proper antecedent basis for "the direction".

Claim 18:

Line 5, "(which may be zero)" should be deleted, since the ordinary dictionary definition of an integer includes zero, it is already understood that the integer m may be zero.

Line 6, "the" (first occurrence) should be deleted, in order to avoid a lack of proper antecedent basis for "the integers of a predetermined mathematical sequence".

Claim 19, line 5: "(which may be zero)" should be deleted, since the ordinary dictionary definition of an integer includes zero, it is already understood that the integer m may be zero.

Claim 20 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim (note that in line 1, claim 20 is a multiple dependent claim, and in line 2, claim 20 is also dependent upon one of claims 3 to 17, of which claims 13, 14, and 17 are also multiple dependent claims). See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.

Appropriate correction is required.

Allowable Subject Matter

3. Claims 1-23 would be allowable over the prior art of record upon the correction of the claim objections noted above.
4. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record, taken alone or in combination, fails to teach or fairly suggest an information carrier and information coding method wherein the spaces between detectable elements encodes the information and each of the spaces can be represented by $A + mG$, wherein A is a first fixed value, G is a second fixed value different from A and m is an integer the values of which are derived from integers of a

predetermined mathematical sequence; in combination with the other claimed limitations as set forth in the claims.

Conventional bar coding techniques either utilize a fixed spacing between detectable elements (such as in the postnet bar code symbology), multiples of a fixed space, or rely upon a predetermined bar and space width combination to encode information (as taught by Bossen et al (US 5,552,591), cited by applicants).

Conventional magnetic encoding techniques rely upon detecting the magnetic bias of a magnetic material or a predetermined character size and spacing requirements (such as the magnetic ink character recognition (MICR) standards).

Thus, the prior art of record does not teach or suggest determining the spacing between detectable elements as claimed in the present invention.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Uhling (US 6,199,765), Uhling (US 5,984,193), Surka (US 5,412,196), Bossen et al (US 5,380,998), Ackley (US 6,321,986), Ackley (US 6,186,406), Ett (US 5,298,731), Eglise et al (US 4,937,436), Imai et al (US 4,864,112), Ackerman et al (US 4,571,713), Kiriyama (US 5,949,051), Fujita et al (US 6,293,466), Scherzer (US 5,434,400), and Bossen et al (JP 4-235693) all teach information carriers and/or information encoding methods.

6. This application is in condition for allowance except for the following formal matters:

The objections to the specification and claims, noted above.

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Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jared J. Fureman whose telephone number is (571) 272-2391. The examiner can normally be reached on 7:00 am - 4:30 PM M-T, and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jared J. Fureman
Jared J. Fureman
Examiner
Art Unit 2876

October 1, 2004